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KNOWLEDGE

VOL 3 JUNE 2009

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

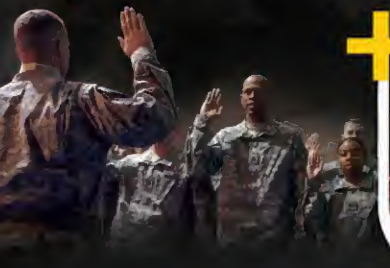


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OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

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Mission statement: USACRC supports our Army by collecting, storing, analyzing, and disseminating actionable information to assist Leaders, Soldiers, Families, and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please e-mail comments to **safe.knowledge@conus.army.mil**.

Knowledge is published monthly by the U.S. Army Combat Readiness/Safety Center. Bldg. 4905, 5th Ave., Fort Rucker, AL 36362-5363. Address questions regarding content to the managing editor at (334) 255-2287. To submit an article for publication, e-mail safe.knowledge@conus.army.mil or fax (334) 255-9044. We reserve the right to edit all manuscripts. Address questions concerning distribution to (334) 255-2062. Visit our Web site at https://safety.army.mil.

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ENGAGE YOU THREE T

Prior to taking this job, I had been told that success is impossible to measure in this business of safety because we know how many Soldiers we lose, but never how many lives we save. While this is true, we have much work yet to do in order reduce our senseless and needless losses. But it's not all bad news. We've seen some successes and we will continue to see more if we apply proactive and engaged leadership.

From my foxhole, there are a couple of areas where I think we've made the greatest strides over the past two years that will help you enhance your existing practices as you move forward.

Communication. Over the last two years, I believe our greatest success was to open lines of communication with the field. As an Army field operating agency located at Fort Rucker, Ala., it has been easy for your Safety Center to become not only isolated from the force, but the rigors that face the force. Through engaged Leaders and Soldiers interacting with those here at the center, we have seen measureable success in opening a constructive dialog with those units in the field. While communication existed in the past, it was often limited within the command of post camps and stations. As a result, our success was often local and rarely was proliferated across our Army. The investment in the Battle Command Knowledge System (BCKS) and similar forums has greatly changed our ability to exchange ideas and share tactics, techniques and procedures in a real-time environment, which has enabled our team to learn at an incredible rate. However, let us not forget that many in our force still have no or limited connectivity and, therefore, we must ensure that these Soldiers are not forgotten.





> "The single **MOST EFFECTIVE TOOL** against accidents, suicides and indiscipline is still a **TRAINED** and **COMPETENT** first-line **SUPERVISOR.**"
>
> DEWELL, U.S. ARMY

UR TO SIX

Accidental loss reduction. We have seen a reduction in accidental fatalities across the force over the last couple of years. Our greatest success has been on duty where Leaders are present, and we are working to leverage Families and peers to make a difference off duty. There is a long list of programs produced by this center and other Army agencies that have been effective in reducing Army accidents, but none compare to effective leadership. The single most effective tool against accidents, suicides and indiscipline is still a trained and competent first-line supervisor. Allow me to explain, because this is one of the most misunderstood tasks in our Army. At last count, there were more than 130 tasks a Soldier must certify in before going downrange; none teach you how to understand Soldiers. Understanding the human dimension is nothing new to Leaders in our Army, but it seems, at times, that many units don't have time for it. If you're not investing in the development of our future Leaders, through officer professional development, noncommissioned officer professional development or some type of unit certification program, you are doing a grave injustice to the future of our Army.

The way ahead. Before the Global War on Terrorism started and we thought we were busy, our Army spent a significant amount of time mentoring and certifying Leaders. During this process, Leaders at all levels mentored two levels down and first-line Leaders spent time getting to know the three to six Soldiers under their charge. They then held those individuals responsible for the standards they set forth. I believe it is time to return to some of those same practices if we are to create a culture in which we can reduce suicides and accidents. Do you train as hard to develop and protect Soldiers in garrison as you do in combat? If not, you should reconsider it because in November 2008, we had lost more Soldiers to accidents than we had in combat operations. So where is the risk to your formation? Every Leader from the most junior specialist to the chief of staff of the Army is a first-line supervisor of at least three to six people. When was the last time you sat down and engaged in meaningful conversation with your three to six? Maybe it's time you get reacquainted.

I would like to thank the safety community, especially those at the brigade combat team level who have deployed repeatedly and continue to work to keep our Soldiers safe.

It has been a pleasure to serve our Army as the U.S. Army Combat Readiness/Safety Center command sergeant major over the last two years. Although as a noncommissioned officer I had spent years enforcing standards and discipline in the name of safety, I found that I knew little of safety at the Department of the Army level. The last two years has been a learning experience to say the least, but I believe it has been a two-way street. Yes, I have learned a lot from this experience, both from the professionals here at the center and from those professionals serving our nation. I cannot begin to thank all of those who provided input over the last two years in an effort to make our Army a safer place. Thank you all.

Safety – it's not about keeping you from doing something; it's about preserving your combat power while defeating those forces that threaten our way of life.



Tod L. Glidewell
Command Sergeant Major
U.S. Army Combat Readiness/
Safety Center

NCOs L
THE WA



Noncommissioned officers are vital to the military's success. Their attention to detail, drive and mentorship encompasses what and who we are as Soldiers. I have been blessed with some outstanding leadership throughout my career. In fact, I believe the reason I am standing here today is because of all the NCOs that have been in my life.

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SGT. 1ST CLASS GLORIA J. CAIN
Noncommissioned Officer Academy
Fort Rucker, Ala.



I had an NCO who watched me like a hawk. At first, I took it personally. I felt he didn't believe a woman could do the job and didn't trust me. Well, I was partially right. He didn't trust me — but not because of my gender. I later learned the close supervision I received was because I was new and really didn't know much about Army aviation.

I was introduced to safety immediately after becoming a Black Hawk crew chief. I quickly learned taking a foreign object debris collection can with me every time I conducted maintenance on the aircraft, as well as conducting a complete toolbox inventory before and after performing maintenance, was not an option, but a requirement.

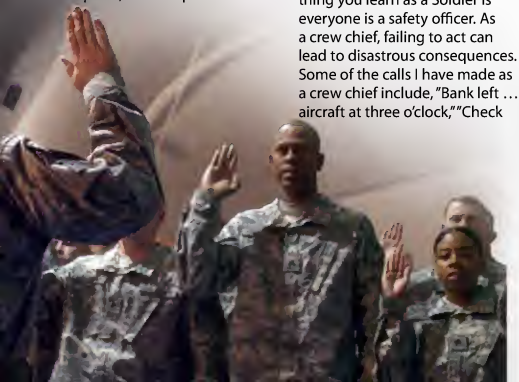
One time, I left a tool on the aircraft. My NCO lit into me like there was no tomorrow. He reinforced that when you are flying, there is no pulling over onto the side of the road; you're going down. I wasn't flying on that aircraft that day, but my friend was onboard. I am thankful my NCO checked behind me and enforced the standards. He always held my feet to the fire when needed.

Safety is second nature to me now. The most important thing you learn as a Soldier is everyone is a safety officer. As a crew chief, failing to act can lead to disastrous consequences. Some of the calls I have made as a crew chief include, "Bank left … aircraft at three o'clock," "Check elevation" and "Wires — pull up!"

Had I not made those calls, I am certain our crew would not be here. That is what my NCOs taught me to do. It isn't something extra we do as Soldiers and NCOs; it is simply what we do. It doesn't make me or anyone else a hero to react appropriately to an unsafe situation. However, if you turn the other way and don't do anything, it makes you a weak Leader.

The greatest thing about the NCO Corps is we are unified and strong. We place trust within each other and our Soldiers, we are consistent, we continually strive to make ourselves better Leaders, we give our best and expect the best and we train for proficiency. We are separated from others because we know our nation cannot survive without us. You have placed your trust in us to take care of your sons and daughters, and that's what we do.

NCOs have played an important part in my Army career. In turn, I believe I have positively influenced Soldiers who have crossed my path. NCOs make it happen. We are the backbone of the Army.«



Check and Verify

SGT. 1ST CLASS PAUL R. PASCUAL
Noncommissioned Officer Academy
Fort Rucker, Ala.

As a young Soldier, I was excited about working in aviation. I was immediately responsible for protecting the lives of everyone who entered and operated my "bird," as well as maintaining the aircraft when it was not in flight.



In the Army, military personnel are Soldiers first; in aviation, crew chiefs are Soldiers committed to safety first. As a newbie, I never accomplished tasks or missions without an NCO overseeing my work. Fortunately, I had an NCO who taught me what right looks like and ensured I followed all safety practices while performing my duties. I've always looked up to my NCOs and Leaders. Early in my career, I set a goal to one day become an influential NCO who holds the line and enforces the standards.

Day-to-Day Missions Bring Adventure

As a platoon sergeant assigned to an attack helicopter company during the 1st Cavalry Division's deployment to Operation Iraqi Freedom 06-08, I was responsible for the maintenance of nine aircraft and ensuring my Soldiers and crew chiefs performed their jobs properly and safely. The Air Cav Brigade was responsible for all aviation assets and support of the division.

The high operational tempo of our missions took its toll on both man and machine. As a senior NCO, I ensured my Soldiers and aircraft were always ready for the missions. Our crew chiefs conducted scheduled and routine maintenance before and after each mission on 12-hour shifts. I stressed to them that proper maintenance is the key to a safe and successful mission and post-flight inspections are just as important as pre-flights. Aviators and crew chiefs performed these inspections; however, this wasn't always the case, especially after a six-hour mission. We conducted preventive maintenance checks and services (PMCS), oil samples and gun inspections on a daily basis due to consecutive and sometimes concurrent missions.

I will never forget one particular PMCS job I inspected. Generally, platoon sergeants in a flight company have limited inspection authority. The crew chief asked me to sign off on an inspection after he had installed panels. Incidentally, crew chiefs don't install panels before the technical inspector performs the safety checks. Nevertheless, I developed a trust with my crew chiefs since they had performed this inspection numerous times.

I checked all the panels for proper installation; however, I was having second thoughts about signing off on the inspection. I needed to check an R510 panel to ensure the grease plug was tightened properly on the tail rotor intermediate gearbox. So I removed the panel and was shocked to see what was behind it.

The "trustworthy" crew chief had left his Gerber multitool on the tailboom, right below the No. 5 driveshaft. I couldn't believe he had done such a careless and unsafe act, knowing the aircraft was getting ready to fly a mission. I went back to the shop, grabbed my camera and took pictures of the hazard. I then confronted the crew chief and his squad leader with what I had found and showed them the pictures.



Both Soldiers were speechless because they knew the consequences if the tool had not been recovered. As corrective training, the crew chief was not allowed to work on an aircraft without his squad leader's supervision. Additionally, due to this incident and prior events, the battalion quality control NCOIC enforced standing operating procedures that all maintainers were not to use their personal tools while working on aircraft.

This incident was a close call and could have been a catastrophic accident if the tool had not been found. I remember our battalion commander always preached about the "CAV" acronym — coordinate, anticipate and verify. This was an eye opener for me. Even an excellent Soldier makes mistakes. I learned a valuable lesson that day: You can trust your Soldiers, but as an NCO, you always need to check and verify (CAV).«

> "I **LEARNED** a valuable **LESSON** that day: You can **TRUST** your **SOLDIERS**, but as an **NCO**, you **ALWAYS** need to **CHECK** and **VERIFY** (CAV)."



Making the CALL

T. JAMES MAHONEY
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Latham, N.Y.

Composite risk management (CRM) is the Army's primary decision-making process for identifying hazards and controlling risks across the full spectrum of Army missions, functions, operations and activities. (Field Manual 5-19)

This sentence lays the foundation for one of the most misunderstood doctrinal concepts in the Army. Designed to be a fully integrated process which facilitates the Military Decision Making Process, CRM is all too often an administrative afterthought to operational planning and execution. The CRM worksheet becomes just another piece of paper stapled to a mission packet, another slide to e-mail to higher and another block to check before we can cross the line of departure.

Five simple steps define the process: identify hazards, assess hazards to determine risk, develop controls and make risk decisions, implement controls, and supervise and evaluate. We do this already, intuitively, every day.

The culture of our organization is such that we don't like to admit there's anything we can't do. We don't like to admit we don't have what's needed to get the job done. We're a goal-oriented, mission-driven organization. We should be. We also need to be realistic enough to know that sometimes we don't have everything we need to do the job and sometimes we need to let someone else decide whether we should do it.

I've had the opportunity to talk about CRM to NCOs and officers of all ranks on many occasions. I've come to realize that the process is misunderstood across all ranks and components. With the help of other safety professionals, I've developed techniques to try to better communicate the process.

Stress the risk we're really trying to mitigate. The CRM process was designed to mitigate risk to mission accomplishment. Many Leaders have what I call "range syndrome." All our careers, we've been told that anyone can call a cease-fire on a range. That's absolutely correct.

Does that mean the whole range is going to be canceled because one individual observes one unsafe act? No. The range is being conducted as the result of a legal order approved by a commander with legitimate training requirements. The unsafe act will be corrected and the conduct of the range will continue. The commander has not been handcuffed from executing a training requirement, an unsafe act or condition has been corrected and we all move on.

The CRM process identifies resource requirements. We can develop all the risk-mitigation measures we want. If we don't have the ability to resource those measures, how have we helped mitigate our risks? Can we lower our residual risk? No. Does that mean we can't ask for what we don't have? We absolutely can. There's no reason why we can't go back to the boss and say, "I have a high risk of mission failure with my available resources, but if I get this … I can lower my risk of mission failure to a low risk." So we have created a statement of need.

Not every risk level can be eliminated. The risk assessment matrix defines risk level based on probability and severity. In many cases, we have to decrease both in order to decrease our overall risk level. Sometimes, we'll only be able to reduce one. If we've reduced the probability of an event occurring but not the severity, have we failed? What if we can only accomplish the opposite? I would submit that reducing either factor, even if it doesn't reduce our residual risk level, is worthy of the effort.

Sometimes the boss has to make the decision. No one really wants to go to the boss and say, "I need you to make the call." Most of us feel that we look indecisive if we kick the decision upstairs. However, sometimes the decision to proceed is way above our pay grade or rank. We have an obligation to let those above us know when a mission they're expecting to be accomplished may not be because it's gone beyond our ability to control. We're not "crying wolf"; we're giving the leadership a realistic picture of our capabilities and limiting the exposure to overall mission failure.

CRM has the ability to be a force multiplier like no other. Moving beyond institutional and organizational barriers to CRM increases the possibility of mission success exponentially.«





FARP Training at the N

SGT. 1ST CLASS TOMORRIS ROBINSON AND SGT. 1ST CLASS JAMES STAFFORD
Eagle Team Operations Group
National Training Center
Fort Irwin, Calif.





NTC is Unmatched

The National Training Center (NTC) is one of the premier training facilities in the world. This is where units train for today's missions in Iraq and Afghanistan and gain the tactical knowledge and confidence to be successful in combat. The Eagle Team observes, coaches and trains aviation battalions and companies during the planning, preparation and execution phases of simulated combat operations. We subsequently collect, analyze and provide feedback to rotational aviation units via after-action reviews and take-home packages. This information provides training feedback to the Army in the form of tactics, techniques and procedures (TTPs), professional articles and video products. This training cannot be replicated anywhere else in the continental United States.

Our high operational tempo (OPTEMPO) training imparts units with real-world missions involving smart decision-making from the command. Platoon leaders and platoon sergeants are trained in the doctrinal employment of TTPs for forward arming and refueling point (FARP) assets in accordance with Field Manual 3-04.104.

So what is a FARP? A FARP is the temporary arming and refueling facility that an aviation unit commander organizes, equips and deploys to support combat tactical operations. Aviation is one of the most effective combat multipliers in this tactical exercise. Distribution platoons assigned to the forward support company provide fuel and ammunition required for training and combat operations. These individuals are responsible for the storage, receipt and accountability of all fuel and ammunition within

the Aviation Task Force. Military occupational specialty (MOS) personnel allocations for the FARP include petroleum supply specialists (92F) and ammunition supply specialists (89B). Together, as one team, we operate and manage FARP operations.

The NTC provides distribution platoons with several opportunities during 14 days of high OPTEMPO training. This includes operating a base FARP at Forward Operating Base (FOB) Miami and a Jump FARP (J-FARP) at FOB Seattle. FOB Miami has six concrete pads that give the unit the ability to have six points for aircraft refueling and a built-in concrete spill container for the pump truck. FOB Seattle has the ability for an eight-point FARP. Its surface contains soil cement, which is a liquid dust abatement application that mitigates brownout conditions typically found in desert environments. It also has a ready ammunition storage area (RASA) at both ends of the FARP.

During the first six days of training, J-FARP operations support aviation and ground units in close combat attack lanes where units are required to receive, store and issue live ammunition during the situational training exercise. For the remainder of the rotation, both FARPS remain operational, pumping fuel and notionally accounting for ammunition. Units must execute these primary tasks to standard to be successful during a rotation.

As observer controllers (OCs), we coach, teach and mentor distribution platoons on all aspects of FARP operations during their deployment to the NTC. We ensure they conduct quality surveillance on all fuel and fuel sources such as vehicles and Advanced Aviation Forward Area Refueling Systems (AAFARS). We also ensure the platoon properly accounts for all ammunition and fuel.

For aviators and ground support personnel, FARPs are one of the most dangerous areas to work. Safety is the biggest factor and enforced in all training exercises. Some high-risk areas to watch for are the safe handling and storage of ammunition, proper use of personal protective equipment, equipment readiness, fire safety, fuel spill procedures and hot refueling operations.

Though most units conduct FARP operations very effectively, most NTC problem trends relate to the lack of planning and preparation. Some common observations during rotations include:

- Units fail to bring enough equipment for multiple refuel points during their 14 days of training. Units should come prepared to operate two four-point FARPs.
- Equipment checks and inspections are not properly conducted at home station before arriving at the NTC. We typically refer to these as pre-combat checks and pre-combat inspections.
- Units are not aware of current safety messages that apply to equipment such as the D-1 nozzles and closed-circuit refueling nozzles.
- Units are not equipped





with the proper long- and short-range communications systems. They should use frequency modulation (FM) communications for terminal guidance of aircraft in the absence of air traffic control services and also for long-range communications with a dedicated RETRANS capability. Handheld communications to talk within the FOB are typically nonexistent, yet help facilitate reports and nontactical traffic. Long-range communications should include Blue Force Tracker, high frequency, Tactical Satellite Communications or Iridium Phone. When planning for communications, encompassing primary, alternate, contingency and emergency means of communications is essential for success.

Leaders face many different personnel challenges. During split-based operations, having the right people at the right place is crucial. The ammunition supply specialist (89B) plays an important role in the success of all FARP operations. Assault and heavy assault task forces do not own ammunition supply specialists. We find unqualified personnel trying to manage live ammunition when they do not understand storage and accountability procedures. We recommend aviation brigades cross-train this MOS throughout its ranks.

The training that distribution platoons receive at the NTC is unmatched. Rotational units get the most realistic training in the most demanding conditions. The OCs provide realistic training and valuable feedback. Together, we ensure aviation units meet their training objectives and are better prepared for combat in support of the Global War on Terrorism. Train the Force!«



Arrive Alive

COMPILED BY THE KNOWLEDGE STAFF

I often travel as an Army reservist or in civilian life for my private business. Those trips involve flying, renting cars and staying in hotels in various cities across the country. While there has been a lot of emphasis on passenger safety in the airline industry, I would like to mention a few safety tips concerning rental vehicles and hotels.



Most rental cars in large fleets are well maintained. These vehicles are inspected for damage and faulty components before and after they are rented. These inspections, however, are not a substitute for doing a good walk around of the vehicle before driving it off the lot.

So what do you want to look for? When you approach a vehicle, check to make sure the tires are properly inflated. Look for poor or uneven wear patterns, such as excessive wear on the outside edges of the front tires. Such patterns can suggest a problem with the vehicle's alignment — something that can negatively affect handling.

Check the tread depth on all four tires. If you have a penny, insert it into the tread with Lincoln's head toward the tire. If you can see the top of his head, the tires are unsafe. Also, look for damage on the tires' sidewalls — places where the rubber has been cupped out, heavily abraded or excessively cracked. Your life is riding on those tires, so it's important to make sure they are safe.

Once you've looked at the tires, check the lights. Turn on the headlights, signals and hazard flashers and walk around the car to make sure everything is working. If you have a passenger, have them stand behind the vehicle to observe the brake and backup lights. If you are alone and it's daytime, back the vehicle close to a shiny surface so you can watch the lights' reflections as they come on.



Take a few moments to adjust the mirrors so you can maintain good visibility beside and behind the vehicle. Also, check the interior of the car. Look under the driver seat for forgotten items that could slide under the pedals during turns or braking. Check the emergency brake and horn to make sure they're working. Finally, if you need to get directions off a map or set up a global positioning system, do it before pulling onto the road.

How about preventive maintenance checks and services (PMCS) on that rental car? You're going to have to get gas, so, while you're at the station, pop the hood. Is the engine oil low? How about the coolant? If needed, replenish these fluids and turn in your receipt to the rental car company. They'll typically credit that amount against your rental fee to reimburse you. After all, they'd rather your car be driven back to the lot instead of towed.

Getting there is only half the mission. Once you've reached your overnight accommodations, you want to make sure they are safe. I have heard stories from people who didn't know how to get out of their hotel when an alarm suddenly went off in the middle of the night. The time for finding an exit is not when smoke is filling the building. After you check in, take a little time as you walk to your room to familiarize yourself with the nearest exits and stairwells. Plan for more than one escape route just in case your main path is blocked.

Entrances can also be a security concern. Many hotels have additional entrances not visible from the check-in lobby. Even though most modern hotels have cameras watching their entrances and parking lots, not all have these security features. During a business trip several years ago, a contractor I was supposed to meet was robbed while coming in the same back entrance I'd used just a few minutes earlier. That taught me to carefully look around before getting out of my car in a hotel parking lot after dark. It also taught me to check the entrance to see if it's well lit. If it's not, it's safer to walk around and enter through the main lobby. Finally, when you're in your room, set the deadbolt and make sure it unlocks when you turn the door handle.

Hear an unexpected knock at the door? Don't assume it is hotel service. Call the front lobby to confirm who is at your door before opening it.

Safety can sometimes slip as a priority for weary travelers eager to reach their hotel and check in for the night. However, using good common sense and maintaining situational awareness can keep you safe — even when you're far from home.«



Fire in the Sky

HOWARD ALLMAN
U.S. Army Technical Center for Explosives Safety
McAlester, Okla.

Fireworks are a July Fourth tradition. To celebrate our nation's independence, many Americans will gather at professional events, while others will choose to hold a personal fireworks extravaganza in their own backyard. When done right, fireworks create spectacular displays of colored light in the night sky. But before lighting the first fuse on that bottle rocket or Roman candle, ensure you know the guidelines for the safe and responsible use of fireworks.

Have you ever wondered what makes those pretty colors when a skyrocket explodes? There are a lot of different chemicals used, but some of the most common are aluminum (produces silver and white flames and sparks), barium (green), copper (blue), lithium (red) and sodium (gold or yellow). On the ground, however, these components are nothing more than explosives and pyrotechnic materials.



DID YOU KNOW?

Sparklers can reach temperatures up to 1,800 F. According to the National Council on Fireworks Safety (www.fireworksafety.com), more than half the sparkler-related injuries happen to children under the age of 14. If sparklers are a part of your child's celebration, ensure they keep them outdoors and away from their face, clothing and hair.



Fireworks are classified as hazardous substances under the Federal Hazardous Substances Act. In fact, consumer fireworks are generally considered more hazardous than our military explosives. In the military, we spend considerable resources throughout the life cycle of ammunition and explosives to ensure they're safe and reliable. While the safety of fireworks continues to improve, many manufacturers and standards do not achieve this same level of safety, quality and reliability.

Take firecrackers, for example. Many people have probably lit 1 ½-inch firecrackers. Were all the fuzes the same length? Did they burn at the same rate? Did they sometimes fizzle out, leaving an even shorter fuze intact? In commercial firework demonstrations, have you seen low bursts or even ground bursts?

Safety is very important, whether it's a big show or backyard use of fireworks with Family and friends. The Consumer Product Safety Commission (CPSC) estimates about 9,800 people were treated in hospital emergency rooms for injuries associated with fireworks in 2007. No one wants their fun to be spoiled by an accident or injury, so, whether you're using commercial or consumer fireworks, the rules on their safe use should always be followed.

For large fireworks displays, Department of the Army Pamphlet 385-64, paragraph 2-12, and National Fire Protection Agency Document 1123, Code for Fireworks Displays, provide current requirements. For personal use of fireworks, some generally accepted safety rules include:

- Maintain adult supervision.
- Alcohol and fireworks are not a good mix. Have a "designated shooter."
- Use eye protection when shooting fireworks and do not let any part of your body get over the fireworks.
- Fireworks should only be used outdoors.
- Never throw or point fireworks at another person.
- Do not handle or try and relight "duds." Wait 20 or 30 minutes, soak the duds in water and then properly dispose of them.
- Read and follow the instructions on how to use the item.
- Keep a bucket of water or a garden hose handy in case of fires.

Fireworks can liven up any Independence Day celebration, but they should always be treated with respect. Remember to use common sense and follow all safety rules so you, your Family members and friends don't become a fireworks statistic.«

FYI

Before spending a fortune on your personal tribute to independence, ensure fireworks are legal to possess and use in your city and state. The National Council on Fireworks Safety's Web site is a good source of information on state fireworks laws. You should also always ask your local fire or police department if fireworks are legal in your area. Although fireworks may be legal in your state, there may be reasons, such as a burn ban due to dry weather, why their use is prohibited in some areas. For more information, visit www.fireworksafety.com.

A CREW CHIEF'S LEGACY

CHIEF WARRANT OFFICER 3 ALAN E. REED
Otis Air National Guard Base
Massachusetts Army National Guard
Falmouth, Mass.

Many years ago, I served as a specialist four with the 48th Aviation Company at Nelligen Barracks in the Federal Republic of Germany. I was on a field training exercise as a Black Hawk crew chief in Netheravon, England, serving in a maintenance platoon as a new "Tango" (67T) and had recently joined the flight platoon. We were the first company-sized element to field the UH-60 in United States Army, Europe. Although inexperienced, I was confident in my crew chief abilities; however, after this incident, I wasn't so sure.

As most Black Hawk crew chiefs know, one of the required aircraft inspections consists of taking oil samples from the intermediate and tail rotor gearboxes and getting them to a lab to conduct an analysis of wear and particles therein. We also take a sample of the auxiliary power unit (APU) oil.

One evening after a night vision goggle flight, we landed on a grassy flightline without incident. Oil samples were due immediately after landing. I had a headache and was tired, but knew I had the next day to rest up, so I pushed on with taking the oil samples with a flashlight after the pilots departed for their hooch.

Typically, this process doesn't take more than 20 or 30 minutes. However, as "Murphy" would have it, I discovered the sump was a bit low while taking the APU oil sample. I took care of it right away and filled the sump using a funnel borrowed from another crew chief. The red plastic funnel was attached to a 10-inch tube with a 3-inch flared end at the opposite end of the funnel. As the flared end of the tube disappeared into the dark, oil-filled sump, I innocently poured the oil into the funnel and then pulled the entire assembly out, only to discover that the flared end didn't come out with the tube.

Crap! I frantically took my flashlight and pointed it inside the sump. With my tired eyes now wide open, I saw the missing piece floating in the oil. This assembly was actually three pieces, not two.

I spent the next hour "fishing" for the piece with my fingers to no avail. Frustrated and worried about how I was to get this thing out, I retired to my bunk and collapsed. I would attempt this feat again first thing in the morning.

I awoke the following morning and immediately headed to my aircraft

to continue my fishing expedition. Luckily, my aircraft wasn't scheduled to fly, so I had time to try a number of ways to retrieve the broken plastic. As a "wannabe" true member of the flight platoon, I was concerned about the impact this incident would have on my future as a crew chief. I worried for several hours while I tried every possible tactic and special tool to get the funnel piece out. Embarrassed and stumped, I finally broke down and told my squad leader my dilemma.

Through the unsuccessful efforts of my squad leader and platoon sergeant to fish the darned piece of plastic out, my first sergeant recognized we needed assistance from the Brits. The APU had to be pulled out of the helicopter and drained. We spent the next two days waiting for the Brits to secure a wrecker with an arm long enough to lift the APU from its compartment, tip it upside down and drain the oil and piece of plastic.

The Black Hawk was down for three days. However, my first sergeant reassured me that accidents happen and he was glad I reported it quickly. We learned a lot about the APU and other maintenance tools during this process. This was the first time an APU had to be removed from a Black Hawk in a field environment. Most importantly, both our armies benefited from this incident, and a bond was formed that can only come from adversity.

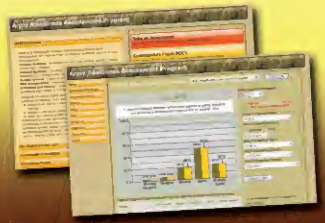


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DYING TO RIDE

COMPILED BY THE KNOWLEDGE STAFF

Imagine a couple of Soldiers — we'll call them Jim and Joe — talking as Jim comes off a 12-hour watch and Joe gets ready to go on duty. It's 7 a.m. on the beginning of a beautiful day, and Joe has a cool sportbike Jim would like to borrow. So, Jim hits up his buddy with his request.

"Hey, Joe, since you have to work, would you mind lending me your bike? I'll have it back by this evening."

Joe thought about it for a minute. He'd lent Jim his bike the day before and it came back in one piece. Figuring he could trust his buddy, Joe answered, "Yeah, sure. Just be careful and fill it up with gas."

Jim took the keys and smiled. As he headed for the parking lot, he called back to Joe, "I'll see ya this evening."

Unfortunately, Joe never had the chance to speak to Jim again. However, he did attend his funeral and memorial service later that week. While Jim was riding that evening, his motorcycle went into a "tank slap" or speed wobble. A friend from his unit was riding behind him and saw Jim go off the right side of the road and over a steep drop-off. The friend stopped and ran to where the bike left the road, but couldn't see it or Jim through the trees and undergrowth below. He called 911.

The local fire department, emergency medical services and police were at the scene within minutes. After more than an hour, they found the motorcycle, but they didn't find Jim. It wasn't until 6 a.m. the next day that his body was found. He'd landed 160 feet from where he'd gone off the road and died from blunt trauma injuries to his head and neck.

Jim is not around to tell us his story. However, investigators from the U.S. Army Combat Readiness/Safety Center delved into this accident to discover how it happened and what might have been done differently to prevent it. What they found was, as in most accidents, there were several contributing factors. First, Jim was a high-risk Soldier. He had two convictions for reckless driving — one of those resulting from a motorcycle crash where he broke his leg. Second, Jim did not have a motorcycle endorsement to his license and had not completed the Motorcycle Safety Foundation's (MSF) Basic *RiderCourse*. For that matter, neither did Joe, the Soldier who owned the motorcycle. Even though Joe's Leaders knew he had the bike, they failed to ensure he got the proper training and license. Third, Jim operated the motorcycle in a careless manner. That set the conditions for the tank slap which led him to lose control of the motorcycle.

Before we go any further, it's important to explain what a tank slap is and what causes it. A tank slap is a rapid, violent, side-to-side swinging of the handlebars and can occur at any speed. Do a search for "tank slap" on the Internet and you'll find video clips of the phenomena.

How do we keep history from repeating in future accidents of this kind? Leaders must identify Soldiers who engage in high-risk activities or demonstrate high-risk behaviors and employ meaningful countermeasures to help keep them safe. Leaders also need to ensure their Soldiers understand the principles of composite risk management (CRM). Jim, who was untrained and inexperienced as a rider, could not do the first step of CRM — identify the tank-slapping hazard — and died because of it.

Composite Risk Management Process



OK, so now that we know what it is, what causes it? In simple terms, the conditions leading to tank slap occur whenever the front wheel loses contact with the road. If the front tire, when it makes contact with the ground again, is not lined up with the rear tire, the front end can react violently and cause tank slapping.

Although worn suspension components can exacerbate the tank slap, it's the front wheel leaving the road that starts the chain of events. While any motorcycle is susceptible to tank slapping, powerful lightweight motorcycles are much more likely to raise their front wheel during acceleration. This is what the accident investigation board believed happened in this accident.

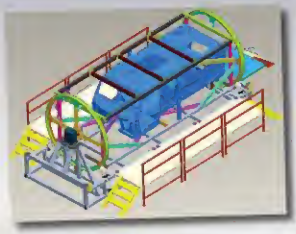
How can Leaders protect their Soldiers who ride? They can start by identifying them and ensuring they get the required training and motorcycle endorsement. That is important because one in four fatal Army motorcycle crashes involve unlicensed riders. Leaders must also act quickly and take decisive action against Soldiers who ride at excessive speeds or in a reckless manner.

Riders need to take personal responsibility, as well. Public streets can be unforgiving, even when riders operate their bikes within the limits of the law. Riders must understand that when they speed, pop wheelies or ride recklessly on the street, they risk finishing their ride in an ambulance or hearse.«

Get MET



Editor's note: The following is an excerpt from an article previously published in Show Daily, the daily news digest of the Interservice/Industry Training, Simulation and Education Conference.



The success of the HMMWV Egress Assistance Trainer (HEAT) has led to the development of a new tool to protect Soldiers.

The Joint Mine Resistant Ambush Protected (MRAP) Vehicle Program has developed an MRAP Egress Trainer (MET). The MET program is of critical importance as MRAP vehicles replace up-armored HMMWVs in Iraq and Afghanistan. As of November 2008, 8,758 MRAP vehicles were fielded in Iraq and 1,154 in Afghanistan, with another 5,000 or so vehicles scheduled to be deployed.





Like the HEAT, the purpose of the MET is to teach Soldiers how to egress MRAP vehicles after a rollover. This experience helps vehicle occupants overcome shock and gain "muscle memory" in knowing what to do when vehicles overturn. Occupants will experience the same maximum side-slope angle, tip-over point and 90- and 180-degree inversion. The MET must be able to complete a full 360-degree rotation in nine to 12 seconds.

Following the promulgation of a draft Joint Urgent Operational Needs Statement in November 2007, a concept feasibility study for the MET was conducted from April to June 2008, and detailed design work began in July. Whereas the HEAT replicates a single vehicle, the MET will replicate five different MRAP vehicles: the Navistar MaxxPro and General Dynamics Land Systems RG-31 Category I MRAPs; and, the BAE Systems RG-33, BAE Systems Caiman and Force Protection Cougar Cat II MRAPs. Using the hulls of vehicles originally subjected to ballistic testing at Aberdeen Proving Ground, the Red River Army Depot is building a single expedient MET for each of the five MRAP variants mentioned above.

The U.S. Army Tank Automotive Research, Development and Engineering Center in Warren, Mich., began limited user testing of the first prototype production standard MET in December 2008. The first shipment of METs was scheduled to arrive in Iraq in April.«



GRAT
GROUND RISK ASSESSMENT TOOL

https://safety.army.mil

GRAT is easy to use and provides users with accident hazard and control information and assists them in producing an automated CRM worksheet (DA Form 7566) for their mission, task or activity. Users can save, e-mail, edit or print the worksheet.



The Last Link

MAJ. DARIN GAUB
National Training Center
Fort Irwin, Calif.

As Army aviation meets the needs of the field, the use of unmanned aircraft systems (UAS) is playing a major role in winning the Global War on Terrorism. Today's role for unmanned aircraft (UA) is primarily reconnaissance. However, future missions will include operations in nuclear, biological and chemical detection, logistical resupply, increased communications relay, target recognition and even attack. These versatile UA are proving their worth every day in operations worldwide.



As with any system, UA have their pros and cons. Communications can be a problem. Today's remotely piloted UAS require a complex and highly reliable communication link to the ground control station (GCS). If a UA loses link with the GCS, it crashes, which is what happened to the aircraft mentioned below.



Background

While launching out of Bicycle Lake Army Airfield (BLAAF) in support of Joint Air Attack Training at the National Training Center (NTC), Shadow tail number 2272 suddenly reported a generator failure. The aircraft operator (AO) immediately directed the Shadow to return to BLAAF for landing.

In accordance with the UAS operator's manual, the AO turned off all nonessential equipment to conserve battery power for flight control movement to keep the Shadow airborne. The Shadow entered the tactical automatic landing system (TALS) loiter area. The loiter area is about 2.5 kilometers radius orbit, and the Shadow was in a clockwise orbit climbing from 700 to 2,000 feet above ground level (AGL) and attempting to find the signal.

The Shadow was on its second orbit in the loiter area when it lost contact with the GCS. At the time of loss, the Shadow was heading 195 degrees and was most likely still in its orbit. The altitude remained between 700 and 2,000 feet AGL. The AO commanded the Shadow to climb so it could deploy its chute since the battery power was low (18 volts) and the previous orbit failed to capture the TALS signal. Unfortunately, the chute never deployed and the Shadow crashed.

The training brigade combat team and NTC permanent party observer/controller aircraft spent the next three days and 52 flight hours searching for the Shadow, only to find it within four kilometers of the loiter area's center of mass grid. Before the Shadow link was lost, numerous reports were obtained through various channels on the potential direction of flight, endurance based on remaining fuel (33 liters) and other applicable technical data. Despite dedicated aircraft and a specific search pattern covering most of the NTC maneuver area, the Shadow was difficult to find because of the terrain and lack of redundant tracking mechanisms.

Lessons Learned

Some key lessons learned were discovered from this accident, both for the rotational unit and operations group at the NTC. A primary concern of losing power to a UA is losing the ability to track it and potentially creating a hazardous situation for troops on the ground, as well as pilots operating in sector.

If Soldiers on the ground are not given a refined grid to narrow their search, they are forced to search large areas. This increases their risk of exposure to direct and indirect fire, as well as improvised explosive devices and other hidden dangers. It also increases risk to other aircraft and crews, as the UA can continue flying in airspace with nobody tracking it.

There is also a significant risk to communications security, primarily if the UA is equipped with a communications relay package. The answer to this problem is to provide the UA with redundant mechanisms for tracking. The NTC is currently tracking the Raven small unmanned aircraft system (SUAS) with a falcon tracker system that operates in the 216 MHz range. This system is effective and inexpensive. Installing a basic tracking mechanism into the Shadow UAS will allow it to be tracked when it loses link with the GCS and crashes, reducing the risk to recovery forces.

Immediate steps must be taken to fix this deficiency. A link to the technology system used at the NTC is http://www.marshallradio.com/falconry/fproducts_transmitters.asp. The NTC is currently working on the viability of putting a falcon tracker or similar system on Shadows to provide the necessary redundant coverage. As Army UAS mature, they will play a larger role in all types of missions. Shouldn't we be ready?«

ALL TIRED OUT

CHIEF WARRANT OFFICER 4 JOSEPH D. REESE
Ground Task Force
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

On the best of days, an Army motor pool is home to numerous hazards. Failing to mitigate risks, not following safety precautions or becoming complacent can all result in a very bad end to a vehicle maintainer's day.



In my 20-plus years as a maintainer, I have seen a number of maintenance-related accidents. Most, if not all, of these accidents were completely preventable. Even "weekend mechanics" understand the danger of injuries that heavy parts, sharp tools or hazardous materials can inflict on users.

Many people have handled the dirty and aggravating task of changing a flat tire — and done so without a second thought. Military maintenance, however, involves vehicles of immense weight and tires of sufficient size to carry them. In this world, changing tires presents not only a challenge, but also the danger of serious bodily harm.

What can happen if the tire maintenance procedures outlined in training manuals (TMs) are not followed or safety precautions are not taken? Rims and tires can explode, causing serious injury. Under the pressure necessary to cause an explosion, rims come apart, making the fragments deadly projectiles. Some maintainers have suffered injuries ranging from broken jaws and arms to knocked-out teeth and serious eye trauma. Occasionally, a tire maintenance injury results in the maintainer leaving the motor pool with fewer fingers.

In one such instance, a maintainer failed to properly follow the procedures outlined in TM 10-3930-660-20, which contains step-by-step instructions





concerning the proper inflation of forklift tires. He elected to use a field-expedient inflation method using a ratchet strap, despite the fact that the forklift tire deflated at a forward operating base and could have easily been removed and taken to a tire safety cage.

The TM specifies that inflation must always be conducted using a tire safety cage. The cage prevents injury due to accidental explosion and would not have required the use of a ratchet strap. (In addition, always use at least a 10-foot extension air hose, snap-on chuck and an in-line pneumatic tire inflator gauge.)

The TM also specifies that the tire be deflated after inflation to ensure the bead is securely seated to rim. In this case, failure to deflate the tire resulted in its expansion as the tension from the ratchet strap was released. This, in turn, caused the ratchet locking mechanism lever to swing backward, severing both of the maintainer's thumb tips at the base of the nail and requiring medical evacuation.

The motor pool is no place for shortcuts or half measures. Strict adherence to the procedures outlined in TMs and a constant focus on composite risk management are critical to the safety of the vehicle maintainers who are responsible for ensuring the Army goes rolling along.«



FYI

Changing a tire on a military vehicle can present some unique challenges. In some cases, Soldiers have been killed or suffered serious injuries while performing tire maintenance. The following are a few of those instances.

- While servicing a UH-60L tire with nitrogen, the rim separated and the tire exploded. A Soldier was fatally injured and another Soldier suffered a permanent total disability injury.
- A Soldier was killed and three others were injured when the split ring on a HEMMT tire blew off after inflation.
- A Soldier suffered a fatal head injury when he was struck by the split ring while inflating an M977 HEMTT tire.
- As a Soldier was mounting a HEMTT tire, the split ring separated. The tire/wheel struck the Soldier, causing fatal injuries.

Proper "uh-Tire"

STEVE BISHEL
U.S. Army Research and Development Command
Tank and Automotive Research, Development and Engineering Center
Detroit Arsenal, Mich.

There are several things you can do to optimize the performance of your tires and ensure your vehicle is operating safely.



Tire Size/Load Rating/NSN

First, it's important to make sure you are using the correct tire for your military vehicle. The tires specified for a specific vehicle are designed to meet the performance required for the vehicle's mission profile. Check your vehicle's technical manual (TM) for the national stock number (NSN) and size and load rating description. All tires on a vehicle must match the description provided in the TM, which includes size, load rating, manufacturer(s), design(s) and part number(s).

Never mix bias and radial tires on the same vehicle and never mix tires with different NSNs on the same vehicle. Driving a vehicle with tires bearing different NSNs can result in loss of control, damage to equipment and serious injury or death of Soldiers.

Tire Inflation Pressure

Correct tire inflation pressure is one of the most important things a user can do to improve tire life and ensure vehicle safety. Tire pressures should be set to those specified in the vehicle's TM. Check and correct a vehicle's tire pressure in accordance with the TM preventive maintenance checks and services (PMCS) table.

Tire pressure should be checked before operation, when tires are still cold. The term "cold psi" is used to indicate the pressure in the tire before the vehicle is operated or after it has remained static for a significant period of time (four hours or more). If there is variation in temperature during the day (i.e., 80 F in the morning and 120 F in the afternoon), cold psi should be set in the morning or coolest time of the day, before the vehicle is operated. Cold psi applies to all tires, independent of geographic location.

When checking pressures, use an accurate tire gauge. When inflating tires on a vehicle, use a 10-foot tire inflation hose with clip-on chuck and in-line gauge. This process allows the maintainer to stay out of the trajectory should tire or wheel components come apart during inflation. When inflating tires that are off the vehicle, use a tire inflation cage in accordance with TM 9-2610-200-14.

Tire Inspection

Inspect tires per the before, during and after operation PMCS table of the applicable operator's TM. Look for cuts, bruises, nails, rocks and uneven wear. Tires designed with built-in wear bar indicators will show solid bars of rubber across the tread crown area when wear is sufficient to require the tire and wheel assembly to be removed



FYI

For additional information on HMMWV tires, see TACOM LCMC Safety of Use Message 08-002 at https://aeps2.ria.army.mil/Commodity/safety/SafetyComm.cfm?FunType=SOUM.

from the vehicle and turned in for repair.

If inflation pressure is 80 percent or less of the recommended tire inflation pressure, or when there is damage to the tire or rim/wheel components, the tire must be deflated and removed for inspection to check the inside for damage. This should only be done by personnel properly trained in tire maintenance. Also, check tires for missing valve caps and replace as required.

Vehicle Alignment/Tire Rotation

Proper alignment and tire rotation are other activities which increase the life and performance of tires. Refer to TM 9-2610-200-14 and your vehicle's TM for more information.«



Hot-Footin' It

CHIEF WARRANT OFFICER 3 DENEMORE BARTLY
Warrant Officer Career College
Fort Rucker, Ala.

In 2007, there were 1,840 reported heat injuries for all military services. Of these, 259 were heat stroke and three were heat-related deaths — one in Iraq, one in basic training and one on a land navigation course. It's the responsibility of commanders and Army Leaders to prevent heat injuries and heat-related fatalities in both combat and training activities.

Foot marches and land navigation training both involve a great deal of walking while wearing load-bearing and other required equipment. These types of physical activities induce significant sweating and fatigue, which can lead to heat injuries. It's important that Leaders are aware of common heat injuries associated with these activities, as well as preventive measures to minimize the risk of these injuries. It's also important for Leaders to be aware that heat injuries may occur when performing activities in a cold or winter environment.

Preventive Planning

Soldiers and Leaders must take a proactive approach to reduce or eliminate the occurrence of heat injuries during road marches and land

FYI

For more information about the Riley card, Ogden Cord, Fluid Replacement and Work/Rest Guide or other heat-injury prevention methods, see the Commander's, Senior NCO's and Instructor's Guide to Risk Management of Heat Casualties on the USACHPPM Web site at http://chppm-www.apgea.army.mil/.

navigation training. When applying composite risk management to these activities, you must remember the five P's: proper planning prevents poor performance. Safety must be considered from the beginning to the end of the plan.

The following control measures will help ensure a safe training event:

- Identify and assess the risks for heat injury before the training event or mission. Leaders must ensure the decision to accept any identified risk is made at the appropriate level.
- Identify prior heat casualties and monitor them closely. Prior heat casualties are at high risk for a recurrence of the prior injury or worse.
- Adhere to prescribed work/rest cycles for high-heat categories, as outlined in the Fluid Replacement and Work/Rest Guide. Plan rest breaks and take them in the shade where possible.
- Monitor and enforce hydration standards outlined in the Continuous Work Duration and Fluid Replacement Guide. Ensure Soldiers carry full canteens for water replacement and place well-marked water stations throughout the training area. Leaders can monitor individual hydration by using the Riley (water) card or Ogden Cord method.
- Use adequate sun protection, such as sunscreen lotion rated at SPF 15 or higher. Ensure the uniform is worn properly to limit exposed skin. Ensure the uniform is properly fitted, to include footwear.
- Ensure Soldiers are well rested



"TRAINING, PLANNING and implementing **RISK MANAGEMENT** measures greatly **REDUCES** the **LIKELIHOOD** of **HEAT INJURIES."**

and fed before the training event.

- Ensure first aid kits and/or combat lifesaver bags are equipped with moleskin and other remedies needed to treat heat-related foot injuries.
- Plan the placement of Leaders to observe and react to any injuries.

Active Prevention

Certain mitigation measures must be fully developed to ensure they play an active role in heat-injury prevention. Establishing a sufficient quantity of water points in designated locations is an important step. Soldiers must be able to refill their canteens or CamelBaks often enough to meet the fluid intake guidance in the Fluid Replacement Guide. Equally critical is briefing Soldiers on the location of these points.

Early identification of heat injuries allows medical personnel to render first aid which can, in many instances, reduce the severity of these injuries. In addition to first aid kits, having iced sheets readily available is a key measure. In the event of heat injury onset, wet sheets kept in coolers of ice can provide immediate relief and treatment of heat injury. Leaders and cadre of training events must know the location of these coolers and ensure there is a plan to quickly get them where they're needed.

Training, planning and implementing risk management measures greatly reduces the likelihood of heat injuries. However, it's important to remember heat injuries can develop



suddenly and can have fatal results if treatment is not immediate and effective. Quickly identifying a heat injury, or recognizing warning signs of a Soldier about to succumb to one, are key to keeping Soldiers safe while engaging in foot marches and land navigation exercises.

One final tool that can play a critical role in heat-injury prevention is the buddy system. Based on the type of training, environmental conditions and terrain, Leaders should give serious consideration to assigning buddy teams as a heat-injury mitigation measure. Doing so may keep these preventable injuries from affecting your formations.

DID YOU KNOW?

Heat injuries can occur in any environment. The following are some common heat-related injuries that can affect Soldiers during foot marches and land navigation training.

- **Sunburn occurs when skin is overexposed to ultraviolet radiation. This overexposure causes the top layers of the skin to release chemicals that cause the blood vessels to expand and leak fluids, causing inflammation, pain and redness.**

- **Heat rash is an irritation of the skin caused by excessive sweating during hot and humid weather. Heat rash appears as clusters of red pimples or blisters on the skin that occur in areas such as the neck, upper chest, groin, under the breasts and in elbow creases.**

- **Heat cramps are muscular pains and spasms caused by a combination of heavy exertion and exposure to heat. They usually involve cramping in the abdomen, arms and calves.**

- **Heat exhaustion is a condition caused by fluid loss, which, in turn, causes decreased blood flow to vital organs. This reduced blood flow can lead to an induced form of shock.**

- **Dehydration is a condition caused when the body loses more fluid than it takes in. Fluid loss may be due to frequent urinating, reduced food and/or water intake, sweating, diarrhea or vomiting.**

- **Overhydration (hyponatremia) occurs when someone drinks an excessive amount of water and/or loses too much salt from the body in a short time. Drinking an excessive amount of water overwhelms the kidneys and they can't process and eliminate the water fast enough, so the amount of sodium in your blood drops too low.**

- **Blisters are a defense mechanism of the body that occurs when the epidermis layer of the skin separates from the dermis. This causes a pool of fluid to collect between the separated layers, while the skin regrows from underneath. Blisters can be caused by chemical or physical injury. Physical injury can be caused by heat and/or friction that can occur during foot marches or land navigation training.**

- **Athlete's foot is a chronic fungal infection of the feet that results in itching, burning and reddened or cracked skin. Causes of athlete's foot include hot, humid weather; excessive sweating; and occlusive, or closed, footwear (sneakers, boots, socks).**

A NEARLY DEADLY DAY IN PARADISE

CHIEF WARRANT OFFICER 3 MICHAEL ECKHARDT
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Fort Wainwright, Alaska

It was a beautiful, sunny Hawaiian day with the thermometer comfortably resting in the high 80s — perfect weather for a motorcycle ride along Oahu's North Shore. After a quick check of my trusty steed, a new Suzuki GSXR 1000, I donned my personal protective equipment and headed for the gate.

I had recently graduated from the Motorcycle Safety Foundation's Experienced *RiderCourse* and considered myself a competent rider. I'd been riding since I was 4 years old, including competing in professional motocross racing since high school. I'd also been riding sportbikes for several years and felt confident in my skills.

As I rode down Kamehameha Highway toward Haleiwa that Saturday morning, I was amazed at the number of tourists on the road. I thought about the upcoming race at the Kahuku motocross track that weekend. At the same time, I was reminding myself to stay alert to the dangers along my route that morning. Those included the pineapple intersection and the Dole Plantation.

As I approached the pineapple intersection, I saw I had the green light and a clear road around the sweeping right-hand turn. While there were cars stopped on the left side of the intersection, I wasn't concerned. After all, I had the green light. I wasn't prepared when, at the worst possible moment, a white van crossed the road and pulled into my lane.

I knew I couldn't stop in time, so I instinctively grabbed a handful of front brake and started looking for maneuver options, but they were limited. There was no road shoulder — only a pineapple field to my right. Going into it would ensure a crash, so that wasn't a good option. (Imagine tumbling through the jagged pineapple tops!)

I guided my bike to the left in hopes of passing the van when, to my horror, I saw a car in the oncoming lane. It was too late to go to the right, so I began contemplating how a mouthful of that van would taste. Fortunately, the oncoming car suddenly drove into a ditch on its side of the road, allowing me to "thread the needle" and pass the van on the left.

I immediately pulled over. I was shaking as I removed my helmet. The fact I'd narrowly missed a

> "I WASN'T PREPARED when, at the WORST possible MOMENT, a white van CROSSED THE ROAD and PULLED into MY LANE."



very bad crash hadn't escaped me. I suddenly no longer felt like riding. As I sat there regaining my composure, I began evaluating what had happened and where I'd gone wrong. I realized I'd made a number of mistakes.

First, although I was familiar with the road and knew the pineapple intersection could be dangerous, I didn't give it the respect it deserved. Second, I was going way too fast for the road and the conditions. The posted speed limit was 55 mph, but I was going closer to 65 mph when the van pulled out. Third, I was overconfident about my abilities. As it turned out, despite my experience in motocross racing, very little of what I'd learned on the track translated to the street. Lastly, I'd overestimated my bike's capabilities. When the van pulled out in front of me, not even the GSXR's amazing braking capability could stop me in time. Complacency, too much speed and overconfidence in myself and my bike left me without options when I needed them most.

I learned a lifetime of lessons in that fraction of a second. I learned to never let the deceptive calm of a beautiful day blind me to the risks while riding. I learned that the moment you stop looking for the risks, they'll start looking for you.



Check out the USACR/Safety Center MMP Web site for some examples of active mentoring programs:

https://safety.army.mil/mmp/



Accidents occurred between Feb. 1-28, 2009



AVIATION

HH-60L

CLASS D

On a multiship medevac mission, aircraft No. 1 landed on the ground. Aircraft No. 2 was on short final and landing trail. As aircraft No. 2 came close to touching down, the rotor wash caused a piece of 4-by-6-foot plywood from an adjacent bunker to become loose and airborne. The wood shot 130 feet and struck the main rotor system of aircraft No. 1, resulting in damage to one main rotor blade tip cap. Both aircraft pilots immediately performed an emergency shutdown and assessed the damage. *Late report.*

MH-60L

CLASS C

A "through-flight" inspection revealed damage to the main rotor blades and a missing auxiliary power unit cover.

UH-60A

CLASS A

The aircraft's main rotor system contacted a concrete barrier as it was ground-taxiing for passenger pickup. The aircraft initiated a spin and the tail boom ultimately separated.

CLASS B

The crew experienced dust conditions during landing, and the nose of the aircraft contacted the top of a berm. During emergency shutdown, the main rotor system brushed the top of the berm.

CLASS C

The aircraft was trail of a flight of three when it contacted a small tree while landing during air assault training. Inspection revealed damage to the undercarriage and stabilator.

UAS

RQ-7B



CLASS B

- The unmanned aircraft (UA) launched with solar panels still attached and was unable to sustain flight. The UA subsequently crashed from 288 feet above ground level.

- The UA experienced a GEN FAIL indication during flight. The UA operator lost link after a voltage drop. The UA is presumed to have made ground contact and has yet to be recovered.

RQ-11B



CLASS C

- The UA operator lost complete video link with the UA during flight. The UA did not respond to rally input; therefore, tracking could not be performed. A total loss was reported.

GROUND

ACV



CLASS B

- Three Soldiers were injured when their Mine Resistant Ambush Protected vehicle left the road in wet conditions, struck a metal pillar and overturned. Personal protective equipment (PPE) use was not reported.

AMV



CLASS A

- A Soldier suffered fatal injuries when he was ejected from a nontactical vehicle that overturned when the driver attempted to change lanes. The Soldier was not wearing a seat belt. The driver, who was wearing a seat belt, was uninjured.

- An AN/TPQ-36 radar and trailer were damaged when the HMMWV towing them overturned. The HMMWV sustained minor damage.

Personnel Injury



CLASS A

- A Soldier was fatally injured while helping a neighbor cut down a tree. As the tree fell toward the road, the Soldier ran out to stop an approaching motorist and was struck by the tree.

- A Soldier is presumed to have drowned when he fell overboard while undergoing vessel qualification. Search and rescue efforts failed to locate the Soldier, who was not wearing a life jacket or cold-weather immersion gear.

- A Soldier and his wife were found dead in their home reportedly due to carbon monoxide poisoning.

DRIVING

POV



CLASS A

- A National Guard Soldier was driving his pickup truck with two passengers when he encountered black ice, lost control, struck a median and overturned. None of the vehicle's occupants were wearing their seat belts and both passengers were ejected. The Soldier was pronounced dead at a local hospital, while the passengers were listed in serious condition.



ATTACK	0/0
RECON	2/2
UTILITY	4/2
CARGO	0/0
TRAINING	0/0
FIXED-WING	0/0
UAS	2/0
TOTAL	8/4



AMV	11/10
ACV	9/2
PERSONNEL INJURY includes weapons-handling accidents	16/12
FIRE/ EXPLOSIVE	3/0
PROPERTY DAMAGE	0/0
TOTAL	39/24

A Soldier was driving his sedan on an autobahn with another Soldier as a passenger when he encountered black ice, lost control and struck a guard rail and a parked utility vehicle. Both Soldiers were transported to a hospital for treatment. The driver died five days later. The passenger suffered only minor injuries.

A Soldier was driving with another Soldier as a passenger when his car went off the road, struck a tree, overturned into a ditch and caught fire. The driver died on impact, but the passenger was able to exit the vehicle.

A Soldier was speeding in his sport utility vehicle when he struck a tractor-trailer turning onto a road. The Soldier was pronounced dead at the scene. Local investigating authorities believe alcohol was a factor in the crash.

A Soldier was driving his pickup with another Soldier as a passenger when he crossed the median and struck another vehicle head-on. The impact killed the Soldier and the driver of the other vehicle. The Soldier riding as a passenger was hospitalized.

CLASS C

Black ice contributed to an accident when a Soldier was returning home after physical training and lost control of his vehicle, which rolled several times. The Soldier was wearing his seat belt and suffered only one lost duty day and five days restricted duty.

POM

CLASS A

A Soldier was operating his motorcycle at a high rate of speed when he lost control while negotiating a curve and was thrown from his bike. The Soldier died at the scene.

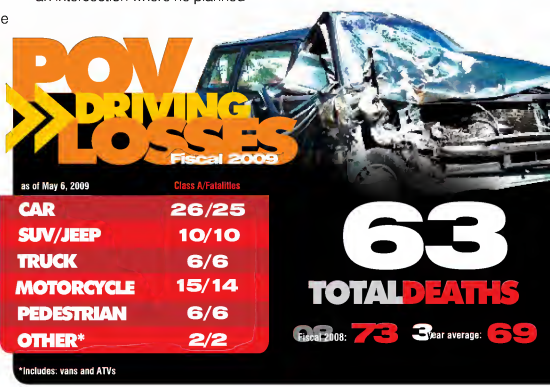
A Soldier lost control of his motorcycle in a turn, struck the guardrail and was thrown from his bike. The Soldier was transported to a local medical facility with severe head injuries and later died. Authorities believe alcohol was a factor in the crash.

A Soldier was operating his motorcycle when he struck the rear of a pickup that had turned in front of him. The Soldier, who was wearing his helmet and all of his PPE, was thrown from his bike into the truck's path and died of his injuries.

CLASS C

A Soldier was approaching an intersection where he planned to turn when a vehicle to his left suddenly pulled into his lane, hitting his motorcycle on the left-front side. The impact knocked the Soldier unconscious, but he was wearing his helmet and PPE and was not seriously injured.

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, e-mail safe.knowledge@conus.army.mil.




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